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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,378

08/31/2006

Helge-Ruben Halse

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04/22/2009

GABLE & GOTWALS

100 WEST FIFTH STREET, 10TH FLOOR

TULSA, OK 74103

EXAMINER

MULLER, BRYAN R

ART UNIT

PAPER NUMBER

3727

MAIL DATE

DELIVERY MODE

04/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,378	Applicant(s) HALSE, HELGE-RUBEN	
	Examiner BRYAN R. MULLER	Art Unit 3727	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the crescent-shaped jaws and non segmented housing of the backup tongs (claims 3 and 13) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. The drawings show the jaw (36) as a semi-circular jaw but not as crescent-shaped because the term crescent is generally defined as having pointed ends and the drawings also fail to clearly support that the housing of the backup tong is non-segmented, wherein the backup tong housing actually appears to be segmented in the drawings, at least having a separable top (shown removed in Fig. 2), which may be considered to be a segment of the housing.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 3 is objected to because of the following informalities: as discussed supra, the term crescent-shaped does not accurately describe the jaws that are represented by the drawings of the current application and it is suggested that the applicant change the word "crescent-shaped" to "semi-circular" to more accurately define the disclosed structure of the jaws. Appropriate correction is required.

3. Claims 3 and 13 are objected to because of the following informalities: the limitation that the housing of the back-up tongs is non-segmented is unclear. Although the applicant does provide support for this structure based on one definition of "segmented", when segmented is considered to be defined by portions of a circle, the term "segmented" also has alternative definitions that are not supported by the structure shown in the drawings or specifically by the specification, such as the definition of "any of the parts into which something can be divided or into which it is naturally divided"¹, wherein the backup tong housing is considered to be segmented, having at least a lid and lower housing that may be considered parts into which the housing may be divided. Thus, it is suggested that the applicant replace the term "non-segmented" with a more

specific description of the intended structure of the backup tong housing. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson (2003/0056623) in view of Stogner (6,505,531).

6. In reference to claim 8, Carlson discloses an assembly (10) for connecting or disconnecting a pipe length to or from a substantially horizontal pipe string, the assembly comprising a power tong (200), a back-up tong (300) a pair of guide columns (90) each having a pitch rack (70), at least one cog (414), at least one hydraulic cylinder (104) and a work area (between tongs 200 and 300) wherein the power tong and back-up tong are movable relative to each other through operation of the hydraulic cylinder (paragraph 68) and the power tong and back-up tong are movable along the columns through operation of the (at least one) cog along the pitch rack (paragraph 91). Carlson further discloses that the assembly is preferably mounted on a chassis, essentially in the form of a vehicle for transporting the assembly, the chassis having a ground engaging device, tracks, an engine, an operators station and a main frame (paragraphs

¹ Cambridge Advanced Learner's Dictionary 2nd Edition

49-50) wherein a method of connecting and disconnecting a pipe length from a pipe string using the assembly of Carlson would inherently comprise the steps of providing the chassis, providing the assembly, as discussed supra, providing a pipe length, securing the pipe length to a pipe string having a connecting point defined at the point where the pipe length is secured to the pipe string (step of connecting the pipe length) and disconnecting the pipe length from the pipe string will include the step of adjusting the height of the assembly to place the connecting point in the work area of the assembly and any point during the method of connecting or disconnecting of the pipe length wherein the cog (414) is not moving to move the back-up tong and power tong relative to the guide columns, the back-up tong may be considered to be locked to the one or more guide columns by the non-moving cog. Additionally, Carlson specifically discloses that connecting and disconnecting a pipe length from a pipe string both include a step of the back-up tong (lower clamp or fixed vise assembly 300) securing the drill string or the drill head in a stationary position (paragraph 46, lines 7-8 and paragraph 58, lines 6-8), which would obviously require the back-up tong to be locked in position in order to effectively hold the pipe string or drill head stationary. However, Carlson fails to disclose that the guide columns are removable from the chassis or that a method of disconnecting a pipe length from a pipe string would include a step of disconnecting the guide columns from the chassis. Stogner discloses an apparatus that is similar to the apparatus of Carlson in that Stogner also discloses a power tong (114) and a back-up tong (108) that are positioned relative to one another such that a work

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area is located between the tongs, and Stogner also discloses a spinning device (118) for rotating the pipe lengths being connected or disconnected from a pipe string.

However, Stogner discloses that the assembly is intended for use on substantially vertical pipe strings wherein the assembly is positioned upright and suspended from a hoisting harness (120') to adjust the position of the assembly relative to the pipe length and pipe string. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the assembly of Carlson to be removably connected from the chassis and to have a hoisting harness, as taught by Stogner, so that the assembly of Carlson may be used to connect and disconnect pipe length to and from substantially horizontal pipe strings when connected to the chassis or alternatively may be disconnected from the chassis, to remove the ground engaging device, tracks, engine, operators station and main frame, which would all be additional unnecessary weight to be suspended in the air, and suspended from the hoisting harness to connect and disconnect pipe length to and from substantially vertical pipe strings, thus providing the assembly of Carlson with multiple applications, making the assembly more versatile and reducing the need for separate assemblies for use on horizontal and vertical pipe strings, which will reduce the cost of equipment, maintenance and repairs. Therefore, the method of disconnecting a pipe length from a substantially vertical pipe string using the assembly disclosed by the combination of Carlson and Stogner, will comprise all of the steps for removing a pipe length, as discussed supra, and will further include the step of removing the assembly, including the guide columns from the chassis of Carlson

and suspending the assembly from a hoisting harness prior to the step of adjusting the height of the assembly to place the connecting point in the work area of the assembly.

7. In reference to claims 9-11, the method of disconnecting a pipe length from a pipe string using the assembly of Carlson and Stogner would obviously further comprise all of the steps disclosed in claims 9-11.

8. Claims 3-7, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson (2003/0056623) in view of Stogner (6,505,531) as applied to claim 8 and further in view of Wilms (3,838,613).

9. In reference to claim 3, the combination of Carlson and Stogner, as discussed supra, will provide the structure and method steps for disconnecting a pipe length from a pipe string, including the steps of engaging the pipe length with the drive ring of the power tongs and engaging the pipe string with the backup tongs, but Carlson and Stogner fail to disclose that the drive ring and backup tong housing may be non-segmented. Wilms discloses a similar assembly for connecting or disconnecting a pipe length to or from a pipe string that is old and well known in the art and Wilms further teaches that the assembly includes a power tong (T) having a non-segmented drive ring and a backup tong (B) having a non-segmented housing (as seen in Fig. 2), wherein the non-segmented drive ring and backup tong housing will ensure that each of the power tong and backup tong may securely grip the pipe length or pipe string by surrounding the pipe around the entire circumference and will prevent accidental disengagement of the pipe by the power tong or backup tong by fully encompassing the pipe. Therefore, it

further would have been obvious to one of ordinary skill in the art at the time the invention was made that the power tong and backup tong of Carlson may be replaced by the power tong and backup tong of Wilms, being known power and backup tongs, which include a non-segmented drive ring in the power tong and a non-segmented housing for the backup tong, as taught by Wilms to ensure that each of the power tong and backup tong may securely grip the pipe length or pipe string and prevent accidental disengagement of the pipe by the power tong or backup tong. Thus, the steps of engaging the pipe length with the drive ring of the power tongs and engaging the pipe string with the backup tongs, as taught by Carlson and Stogner, would obviously include encircling the pipe length with the non-segmented drive ring of the power tongs, which does carry a set of crescent-shaped jaws (4; as seen in Fig. 2, each jaw clearly having a crescent shape) and encircling the pipe string with the non-segmented housing of the backup tongs.

10. In reference to claims 4-6, the method of disconnecting a pipe length from a pipe string using the assembly of Carlson and Stogner would obviously further comprise all of the steps disclosed in claims 4-6.

11. In reference to claim 7, as discussed supra, Carlson discloses that connecting and disconnecting a pipe length from a pipe string both include a step of the back-up tong (lower clamp or fixed vise assembly 300) securing the drill string or the drill head in a stationary position (paragraph 46, lines 7-8 and paragraph 58, lines 6-8), which would obviously require the back-up tong to be locked in position in order to effectively hold the pipe string or drill head stationary. Alternatively, any point during the method of

connecting or disconnecting of the pipe length wherein the cog (414) is not moving to move the back-up tong and power tong relative to the guide columns, the back-up tong may be considered to be locked to the one or more guide columns by the non-moving cog. Thus, the method disclosed by Carlson, Stogner and Wills would obviously include the step of locking the back-up tong to the one or more guide column.

12. In reference to claims 12 and 13, when the power tong and backup tong of Carlson are replaced by the power tong and backup tong of Wilms, as discussed supra, the steps of engaging the pipe length with the drive ring of the power tongs and engaging the pipe string with the backup tongs, as taught by Carlson and Stogner, would obviously include encircling the pipe length with the non-segmented drive ring of the power tongs and encircling the pipe string with the non-segmented housing of the backup tongs.

Response to Arguments

13. Applicant's arguments, see lines 3-11 on page 6 of the Remarks, filed 2/2/2009, with respect to the objection to the drawings and rejection under 35 U.S.C. 112, 1st and 2nd paragraphs for failing to show or provide support for the non-segmented drive ring have been fully considered and are persuasive because the drive ring (30) is considered to be "non-segmented" by any definition of the term. The objection to the drawings and rejections of claims 3-7 and 12 have been withdrawn.

14. Applicant's arguments filed 2/2/2009 regarding the prior art rejections of claims 3-13 have been fully considered but they are not persuasive. The applicant first argues

that the non-segmented housing for the back-up tong is supported. Although the examiner agrees that one definition of the term “segmented” is supported by the specification. There are other common meanings of the term that would not be considered to be supported, wherein neither the original application, nor the context of the claims are considered to clarify the applicant’s intended definition of the term. Thus, as discussed supra, it is suggested that the applicant amend the claims to more accurately claim the intended structure of the housing. The applicant further argues that the prior art references fail to provide a step of locking the backup tongs to the one or more guide columns. However, as discussed in the previous rejection, any time that the driven cog (414) used to move the back-up tong relative to the columns is held stationary by the motor that is not moving, the backup tong may be considered to be locked to the columns and further, as discussed supra, Carlson does disclose that the backup tong is used to hold portions of the pipe string in a *stationary* position, which would require locking of some form to the columns. Therefore, the Carlson reference is considered to teach the step of locking the backup tong to the columns. The applicant additionally argues that there is no suggestion in the Stogner or Carlson references to remove the chassis from the columns of the assembly. However, although neither reference alone suggests removal of the chassis, Stogner does clearly teach that it is known in the art to suspend an assembly similar to that of Carlson from a cable in order to control vertical pipe strings, which provides motivation to alternatively suspend the assembly of Carlson. Further, as discussed supra, Carlson teaches that the chassis is essentially a vehicle for transporting the assembly on the ground, wherein it further

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would have been obvious to remove the chassis from the assembly when the assembly is suspended in the air to reduce the weight being suspended by removal of the unnecessary chassis because the ground engaging device, tracks, engine, operator's station and main frame are all unnecessary in the suspended application of the assembly. The applicant further argues that the references teach away from one another as well as teaching away from the claimed invention because each reference provides different structure and different applications from each other and from the claimed inventions. However, a teaching of different structure or function is not considered to be a teaching away unless there is an express statement that criticizes, discredits or otherwise discourages the combination (see MPEP 2141.0, section VI), which none of the prior art reference provide. Thus, there is no teaching away from one another or the claimed invention and the combination of references is considered to provide the claimed invention. Finally the applicant argues that the references do not disclose a crescent –shaped jaw. However, the jaws of Wilms are considered to be crescent-shaped, as discussed supra. Therefore, the Examiner maintains all of the above rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN R. MULLER whose telephone number is (571)272-4489. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bryan R Muller/
Primary Examiner, Art Unit 3727
4/21/2009